

METHOD OF FORMING STRAINED SI/SIGE ON INSULATOR WITH SILICON GERMA- NIUM BUFFER

Abstract

A method is disclosed for forming a semiconductor wafer having a strained Si or SiGe layer on an insulator layer. The method produces a structure having a SiGe buffer layer between the insulator layer and the strained Si or SiGe layer, but eliminates the need for Si epitaxy after bonding. The method also eliminates interfacial contamination between strained Si and SiGe buffer layer, and allows the formation of Si/SiGe layers having a total thickness exceeding the critical thickness of the strained Si layer.